

## **Regional HIV/AIDS Epidemiologic Profile of Essex County, Massachusetts: 2012**

### **Recent changes to the presentation of Massachusetts HIV/AIDS surveillance data**

Effective January 1, 2011, the Massachusetts Department of Public Health (MDPH), Bureau of Infectious Diseases, HIV/AIDS fact sheets, epidemiologic reports and other HIV data presentations have been updated to remove all HIV/AIDS cases who were first diagnosed in another state before being reported in Massachusetts. As of January 1, 2012, this resulted in the removal of 2,924 HIV/AIDS cases, of which 808 have died and 2,116 were living. These persons living with HIV/AIDS may still continue to reside and receive care in the Commonwealth. The total number of persons living with HIV/AIDS, irrespective of location of diagnosis, is the basis for MDPH service planning. This change is partially a result of increased activities required by the Centers for Disease Control and Prevention (CDC) for de-duplication among states in an effort to identify cases that are counted multiple times in the National HIV/AIDS Surveillance System. The cases are assigned to the state that reports the earliest date of AIDS diagnosis if available. If the case has not progressed to AIDS, the case is assigned to the state with the earliest HIV diagnosis date. Please note that all previous HIV/AIDS fact sheets, data reports and presentations include cases that may have been first diagnosed in another state.

Also effective January 1, 2011, the MDPH HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to eliminate the presumed heterosexual exposure mode category for males; those cases have been reassigned to the no identified risk (NIR) exposure mode category. The presumed heterosexual exposure mode category was used with the intention of identifying HIV exposure mode for females when sex with males is the only reported risk factor, there is no evidence of current or past injection drug use (IDU), and behavioral risk and HIV status information about male sexual partners are unknown. Twenty-nine percent of females living with HIV/AIDS and 40% of recent female HIV diagnoses are reported in the presumed heterosexual exposure mode category. The application of the presumed heterosexual exposure mode category to males is overly inclusive in that female to male HIV transmission is biologically less probable, and there are alternate exposure modes that are possible for males, including sex with other men (MSM) or IDU. The CDC reports males diagnosed with HIV/AIDS who report sex with females as their only risk factor, without corresponding partner risk or HIV status information, in the NIR exposure mode category. This revision to report presumed heterosexual male HIV/AIDS cases as NIR will bring Massachusetts HIV/AIDS case reporting for males in alignment with CDC standards. The MDPH will maintain presumed heterosexual and heterosexual exposure mode categories for females.

**Table 1. Total number of people reported with HIV infection or AIDS<sup>1</sup> by mortality status on December 31, 2011: Essex County, Massachusetts<sup>2</sup>**

	<b>N</b>	<b>%</b>
People Living with HIV/AIDS	1,499	61%
People Reported with HIV or AIDS who are Deceased	971	39%
<b>Total Number of People Reported with HIV Infection or AIDS</b>	<b>2,470</b>	<b>100%</b>

<sup>1</sup> Does not include individuals diagnosed with HIV infection (non-AIDS) who died prior to January 1, 1999 or who were not in care on January 1, 1999

<sup>2</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/12

**Table 2. Average annual rate of HIV infection diagnosis from 2008 to 2010 and HIV/AIDS prevalence rate on 12/31/11<sup>1</sup>: Essex County, Massachusetts<sup>2</sup>**

<b>Average annual HIV diagnosis rate from 2008–2010</b>	<b>Average rate per 100,000</b>	<b>Average annual number of HIV diagnoses</b>
Essex County, MA	8.1	60.3
Massachusetts Total	10.3	664.7
<b>HIV/AIDS prevalence rate on 12/31/11</b>	<b>Rate per 100,000</b>	<b>Number of people living with HIV/AIDS</b>
Essex County, MA	201.7	1,499
Massachusetts Total	277.5	18,170

<sup>1</sup> The denominators for rate calculations are from the MDPH Massachusetts Race Allocated Census 2010 Estimates (MRACE 2010), Massachusetts Department of Public Health, Bureau of Health Information, Statistics, Research, and Evaluation.

<sup>2</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/12

**Table 3. People living with HIV/AIDS<sup>1</sup>, deaths among people reported with HIV/AIDS, and newly diagnosed HIV infections by year<sup>2</sup>: 2001–2010, Essex County, Massachusetts<sup>3</sup>**

<b>Year</b>	<b>HIV/AIDS Prevalence</b>	<b>Deaths among those with HIV/AIDS</b>	<b>Diagnosis of HIV Infection</b>
2001	1,062	39	77
2002	1,117	34	87
2003	1,166	33	82
2004	1,223	21	78
2005	1,278	24	78
2006	1,316	25	63
2007	1,339	33	56
2008	1,387	14	62
2009	1,423	20	56
2010	1,461	25	63

<sup>1</sup> Number of people living with HIV/AIDS on 12/31 of each year

<sup>2</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.

<sup>3</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

Data source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/12

**Table 4. People diagnosed with HIV infection from 2008–2010<sup>1</sup> and people living with HIV/AIDS on December 31, 2011 by gender, place of birth, race/ethnicity, exposure mode, age at HIV infection diagnosis and current age: Essex County, Massachusetts<sup>2</sup>**

HIV Infection Diagnoses			PLWH/A	
Gender:	N	%	N	%
Male	124	69%	983	66%
Female	57	31%	516	34%
Place of Birth:	N	%	N	%
US	98	54%	889	59%
Puerto Rico/US Dependency <sup>3</sup>	21	12%	252	17%
Non-US	62	34%	358	24%
Race/Ethnicity:	N	%	N	%
White (non-Hispanic)	64	35%	665	44%
Black (non-Hispanic)	37	20%	247	16%
Hispanic/Latino	74	41%	558	37%
Asian/Pacific Islander	5	3%	24	2%
Exposure Mode:	N	%	N	%
Male-to-male sex (MSM)	61	34%	436	29%
Injection Drug Use (IDU)	12	7%	304	20%
MSM/IDU	-- <sup>7</sup>	-- <sup>7</sup>	41	3%
Heterosexual Sex	33	18%	263	18%
Other	-- <sup>7</sup>	-- <sup>7</sup>	42	3%
Total Undetermined	71	39%	413	28%
• Presumed Heterosexual Sex <sup>4</sup>	20	11%	143	10%
• Undetermined <sup>5</sup>	51	28%	270	18%
Age:	N	%	N	%
	At Diagnosis		On December 31, 2011	
Under 13	0	0%	4	<1%
13 to 19	4	2%	12	1%
20 to 24	19	10%	30	2%
25 to 29	16	9%	35	2%
30 to 34	25	14%	77	5%
35 to 39	22	12%	111	7%
40 to 44	32	18%	200	13%
45 to 49	27	15%	315	21%
50 to 54	21	12%	309	21%
55 to 59	5	3%	211	14%
60+	10	6%	195	13%
<b>Total<sup>6</sup></b>	<b>181</b>	<b>100%</b>	<b>1499</b>	<b>100%</b>

<sup>1</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available three-year period after the implementation of HIV infection reporting in 1999.

<sup>2</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

<sup>3</sup> Ninety-eight percent of people diagnosed with HIV infection from 2008–2010 who were born in a US dependency were born in Puerto Rico, 1% were born in the US Virgin Islands, 1% were born in Guam and 1% were born in an unknown dependency.

<sup>4</sup> Includes female sex with male of unknown HIV status or risk. This category is limited to females.

<sup>5</sup> Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

<sup>6</sup> Total includes American Indian/Alaska Native, other and unspecified race/ethnicity.

<sup>7</sup> Values less than five are suppressed for populations less than 50,000 or for populations of unknown size. Additional values may be suppressed to prevent back calculation.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/12

**Table 5. People living with HIV/AIDS on December 31, 2011 by gender and race/ethnicity: Essex County, Massachusetts<sup>1</sup>**

Race/Ethnicity:	Male		Female	
	N	%	N	%
White (non-Hispanic)	528	54%	137	27%
Black (non-Hispanic)	124	13%	123	24%
Hispanic/Latino	315	32%	243	47%
Asian/Pacific Islander	13	1%	11	2%
<b>Total<sup>2</sup></b>	<b>983</b>	<b>100%</b>	<b>516</b>	<b>100%</b>

<sup>1</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

<sup>2</sup> Total includes American Indian/Alaska Native, other and unspecified race/ethnicity.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/12

**Table 6. People living with HIV/AIDS on December 31, 2011 by gender and exposure mode: Essex County, Massachusetts<sup>1</sup>**

Exposure Mode:	Male		Female	
	N	%	N	%
Male-to-male sex (MSM)	436	44%	N/A	N/A
Injection drug use (IDU)	194	20%	110	21%
MSM/IDU	41	4%	N/A	N/A
Heterosexual sex	69	7%	194	38%
Other	23	2%	19	4%
Total Undetermined	220	22%	193	37%
• Presumed heterosexual sex <sup>2</sup>	N/A	N/A	143	28%
• Undetermined <sup>3</sup>	220	22%	50	10%
<b>Total</b>	<b>983</b>	<b>100%</b>	<b>516</b>	<b>100%</b>

<sup>1</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

<sup>2</sup> Includes female sex with male of unknown HIV status or risk. This category is limited to females.

<sup>3</sup> Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

N/A=Not Applicable

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/12

**Table 7. People diagnosed with HIV infection by gender and year of diagnosis: Essex County, Massachusetts<sup>1</sup>, 2001–2010<sup>2</sup>**

	Male		Female		Total
	N	%	N	%	
2001	47	61%	30	39%	77
2002	59	68%	28	32%	87
2003	49	60%	33	40%	82
2004	47	60%	31	40%	78
2005	48	62%	30	38%	78
2006	43	68%	20	32%	63
2007	31	55%	25	45%	56
2008	44	71%	18	29%	62
2009	36	64%	20	36%	56
2010	44	70%	19	30%	63

<sup>1</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

<sup>2</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/12

**Table 8. People diagnosed with HIV infection by race/ethnicity and year of diagnosis: Essex County, Massachusetts<sup>1</sup>, 2001–2010<sup>2</sup>**

	White Non-Hispanic		Black Non-Hispanic		Hispanic/Latino		Total <sup>3</sup>
	N	%	N	%	N	%	N
2001	32	42%	19	25%	23	30%	77
2002	32	37%	20	23%	32	37%	87
2003	27	33%	18	22%	37	45%	82
2004	28	36%	18	23%	31	40%	78
2005	27	35%	19	24%	30	38%	78
2006	26	41%	15	24%	21	33%	63
2007	20	36%	9	16%	26	46%	56
2008	24	39%	12	19%	23	37%	62
2009	17	30%	12	21%	27	48%	56
2010	23	37%	13	21%	24	38%	63

<sup>1</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

<sup>2</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.

<sup>3</sup> Totals include Asian/Pacific Islander, American Indian/Alaskan Native individuals, and those of other or undetermined race/ethnicity.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/12

**Table 9. People diagnosed with HIV infection by place of birth and year of diagnosis: Essex County, Massachusetts<sup>1</sup>, 2001–2010<sup>2</sup>**

	US		Puerto Rico/ US Dependency <sup>3</sup>		Non-US		Total
	N	%	N	%	N	%	N
2001	39	51%	14	18%	24	31%	77
2002	45	52%	14	16%	28	32%	87
2003	40	49%	15	18%	27	33%	82
2004	44	56%	9	12%	25	32%	78
2005	39	50%	8	10%	31	40%	78
2006	38	60%	5	8%	20	32%	63
2007	29	52%	9	16%	18	32%	56
2008	40	65%	6	10%	16	26%	62
2009	29	52%	6	11%	21	38%	56
2010	29	46%	9	14%	25	40%	63

<sup>1</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

<sup>2</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.

<sup>3</sup> Ninety-eight percent of all people diagnosed with HIV infection in MA who were born in a US dependency were born in Puerto Rico, 1% were born in the US Virgin Islands, <1% were born in American Samoa, <1% were born in Guam and 1% were born in an unknown dependency.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/12

**Table 10. People diagnosed with HIV infection by exposure mode and year of diagnosis: Essex County, Massachusetts<sup>1</sup>, 2001–2010<sup>2</sup>**

	MSM		IDU		MSM/ IDU		HTSX		Other		Pres. HTSX <sup>3</sup>		Undeter- mined <sup>4</sup>		Total
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N
2001	22	29%	7	9%	-- <sup>5</sup>	-- <sup>5</sup>	16	21%	-- <sup>5</sup>	-- <sup>5</sup>	12	16%	14	18%	77
2002	22	25%	16	18%	-- <sup>5</sup>	-- <sup>5</sup>	9	10%	-- <sup>5</sup>	-- <sup>5</sup>	14	16%	25	29%	87
2003	20	24%	20	24%	-- <sup>5</sup>	-- <sup>5</sup>	12	15%	-- <sup>5</sup>	-- <sup>5</sup>	8	10%	21	26%	82
2004	18	23%	12	15%	-- <sup>5</sup>	-- <sup>5</sup>	11	14%	-- <sup>5</sup>	-- <sup>5</sup>	13	17%	20	26%	78
2005	20	26%	8	10%	-- <sup>5</sup>	-- <sup>5</sup>	12	15%	-- <sup>5</sup>	-- <sup>5</sup>	14	18%	21	27%	78
2006	19	30%	7	11%	-- <sup>5</sup>	-- <sup>5</sup>	12	19%	-- <sup>5</sup>	-- <sup>5</sup>	8	13%	15	24%	63
2007	14	25%	11	20%	-- <sup>5</sup>	-- <sup>5</sup>	10	18%	-- <sup>5</sup>	-- <sup>5</sup>	8	14%	12	21%	56
2008	22	35%	5	8%	-- <sup>5</sup>	-- <sup>5</sup>	11	18%	-- <sup>5</sup>	-- <sup>5</sup>	5	8%	17	27%	62
2009	20	36%	-- <sup>5</sup>	-- <sup>5</sup>	0	0%	9	16%	-- <sup>5</sup>	-- <sup>5</sup>	8	14%	14	25%	56
2010	19	30%	-- <sup>5</sup>	-- <sup>5</sup>	-- <sup>5</sup>	-- <sup>5</sup>	13	21%	0	0%	7	11%	20	32%	63

<sup>1</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

<sup>2</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.

<sup>3</sup> Includes female sex with male of unknown HIV status or risk. This category is limited to females.

<sup>4</sup> Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

<sup>5</sup> Values less than five are suppressed for populations less than 50,000 or for populations of unknown size. Additional values may be suppressed to prevent back calculation.

MSM = Male-to-Male Sex; IDU = Injection Drug Use; MSM/IDU = Male-to-Male Sex and Injection Drug Use; HTSX = Heterosexual Sex; Pres. HTSX = Presumed Heterosexual Sex

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/12



**Table 11. People diagnosed with HIV infection and AIDS within two months and all people diagnosed with HIV infection by year of diagnosis: Essex County, Massachusetts<sup>1</sup>, 2001–2010<sup>2</sup>**

	HIV and AIDS diagnosed within two months	All HIV infection diagnoses	% diagnosed with HIV and AIDS within two months
Year:	N	N	%
2001	35	77	45%
2002	34	87	39%
2003	25	82	30%
2004	40	78	51%
2005	23	78	29%
2006	22	63	35%
2007	21	56	38%
2008	20	62	32%
2009	22	56	39%
2010	24	63	38%

<sup>1</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

<sup>2</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.  
Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/12

**Table 12. People diagnosed with HIV infection and AIDS within two months and all people diagnosed with HIV infection by gender, race/ethnicity, and place of birth: Essex County, Massachusetts,<sup>1</sup> 2008–2010<sup>2</sup>**

	HIV and AIDS diagnosed within two months	All HIV infection diagnoses	% diagnosed with HIV and AIDS within two months
<b>Gender:</b>	<b>N</b>	<b>N</b>	<b>%</b>
Male	50	124	40%
Female	16	57	28%
<b>Race/Ethnicity:</b>	<b>N</b>	<b>N</b>	<b>%</b>
White (non-Hispanic)	20	64	31%
Black (non-Hispanic)	12	37	32%
Hispanic/Latino	30	74	41%
Asian/Pacific Islander	-- <sup>5</sup>	-- <sup>5</sup>	-- <sup>5</sup>
Other/Undetermined <sup>3</sup>	-- <sup>5</sup>	-- <sup>5</sup>	-- <sup>5</sup>
<b>Place of Birth:</b>	<b>N</b>	<b>N</b>	<b>%</b>
US	36	98	37%
Puerto Rico/US Dependencies <sup>4</sup>	13	21	62%
Non-US	17	62	27%
<b>Total</b>	<b>66</b>	<b>181</b>	<b>36%</b>

<sup>1</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

<sup>2</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available three-year period after the implementation of HIV infection reporting in 1999.

<sup>3</sup> Includes American Indian/Alaska Native, other and unspecified race/ethnicity.

<sup>4</sup> Ninety-eight percent of people diagnosed with HIV infection from 2008–2010 who were born in a US dependency were born in Puerto Rico, 1% were born in the US Virgin Islands, 1% were born in Guam and 1% were born in an unknown dependency.

<sup>5</sup> Values less than five are suppressed for populations less than 50,000 or for populations of unknown size. Additional values may be suppressed to prevent back calculation.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/12